Chapter 5

Deploying FP

SECTION I – PREPARATION FOR DEPLOYMENT

REQUESTING FP SUPPORT

5-1. A theater or task force wanting FP support must first know exactly what its requirements would be. It must also know how FP will be used; for example, rest and refit, base camp operations, intermediate staging base, evacuation or humanitarian aid. This results in a well-defined mission statement. Based on this mission statement, DA DCSLOG will determine the appropriateness of the request. If approved, DA DCSLOG makes the necessary arrangements to release FP module(s) from Army prepositioned stock. AMC will arrange transport of modules to theater SPOD. At the same time, the requesting organization will perform an analysis to determine the appropriate mode of operation. If full or partial operation by military personnel is the best method, the organization requests deployment of a QM FP Company(s) through the appropriate channels.

HOME STATION ACTIVITIES

5-2. After orders are received to deploy, the Commander and the First Sergeant of the QM FP Company begin deployment alert and recall activities. Preparation for overseas movement will be done in order to bring the company to the appropriate strength and to complete necessary administrative tasks. Predeployment training will be carried out to ensure mastery of the tasks required to perform the unit's critical mission of "Providing FP Support."

5-3. Predeployment supply activities will be done to ensure that the company has enough supplies of food, fuel, water, ammunition, repair parts, and other needed items to sustain a nontactical road march from home station to the port of debarkation, and a tactical road march from the port of embarkation to the FP AO. Consideration should also be taken to acquire necessary items for the support of the FP Module(s). See Appendix D for the FP SSP. Besides the SSP, certain Class IV construction materials, such as soil, aggregate, lumber, fencing, and gabion wire may also be required, depending on the AO.

5-4. The company's publication library must be verified and updated to include the most recent copies of all required publications including TMs. The TMs included with pre-positioned FP modules and operational project stocks are updated only during COSIS cycles (30-month intervals), so an up-to-date library will be invaluable.

5-5. The commander will assign key personnel from the QM FP Company to deploy as soon as possible, as part of the AMC LSE advance quartering party. Key personnel include the contracting officer, the engineer officer, and the preventive medicine NCO. The contracting officer will coordinate with the MACOM contracting officer for nonmilitary services and materials. The engineer officer will begin the site selection process with the site selection team and supervise site preparation. The preventive medicine NCO will conduct surveillance of the area to determine sanitary conditions and medical requirements. The senior ranking company representative will lead the company personnel and will maintain communications with the company commander concerning advance quartering party activities and progress.

5-6. Planning and preparation for a nontactical road march from home station to the port(s) of embarkation will be done. The plan should include the route to be taken, time, fuel requirements, and other critical factors. Preparation for the nontactical road march begins with the performance of corrective maintenance, as necessary, on mission specific organic equipment. PMCS are also done on all organic vehicles and equipment in preparation for an extended deployment.

SECTION II –ADVANCE QUARTERING PARTY ACTIVITIES

SELECTION OF COMPANY ADVANCE QUARTERING PARTY MEMBERS

5-7. Key personnel and other members assigned by the company commander will travel to the theater or AO as part of the AMC LSE advance quartering party. Key personnel are the contracting officer, the engineer officer, and the preventive medicine NCO. The company commander may coordinate with the leader of the AMC LSE Advance Quartering Party to determine if other members of the company should be assigned duties as a member of the party. The senior ranking company representative will lead the company personnel and maintain communications with the company commander concerning advance quartering party activities and progress.

RESPONSIBILITIES OF THE ADVANCE QUARTERING PARTY

5-8. The AMC LSE advance quartering party is responsible to: (1) secure an appropriate site for the operation of a FP module(s); (2) supervise the physical preparation of the site(s) for setup of the module(s); (3) secure required nonmilitary support and resources for FP site preparation, setup, and operations; and (4) conduct surveillance to determine sanitary, environmental, and medical issues associated with the AO. Upon procurement of an operating site, the advance quartering party will occupy the area, secure the site, and direct site preparations. They must also perform guide functions, as required, to direct the main body to the operating site.

SELECTING A SITE FOR FP OPERATIONS

5-9. The site selection process is the responsibility of the AMC LSE advance quartering party and begins before the main body moves from home station. The advance quartering party must consider the mission, political considerations, and availability of appropriate resources into the selection decision. Host nation representation should be included in the selection process. FP deployment requires tons of equipment to be transported and thousands of hours of labor making it crucial that the operating site also be secure, safe, accessible, environmentally viable, and suitable for providing effective FP support. The site selection process is a joint effort typically consisting of the following team members:

- The Task Force or MACOM of the receiving theater, represented by the plans officer of the Rear Command Post.
- U.S. Army Corps of Engineers (USACE) Contingency Real Estate Acquisition Team (CREST), or equivalent assurance of site acquisition either through HNS or leasing
- Engineer Terrain Analysis Section of a Topographic Planning and Control Company, or equivalent, for terrain and soil analysis
- USACE Force Protection Specialist or equivalent
- The theater engineering unit (military or civilian) selected to perform the site preparation
- FP Company, represented by the contracting officer and engineering officer

5-10. Conversion factors and foreign units of measure to assist an OCONUS site selection are provided at Appendix E.

SITE SELECTION CONSIDERATIONS

5-11. **Mission.** Consider what units or groups FP will be supporting. Remember that FP operations will not relocate, so it is paramount that the module(s) be placed in an area that will provide convenient, long-term service to the units to be supported.

5-12. **Security.** The QM FP Company can defend against a Level I threat and requires assistance from tenant and/or theater assets for Level II/III threats. In determining the security level of the FP module(s), consider the METT-T and the units and organizations to be supported. A FP module will typically be located in the corps area and not farther forward than the division support area. A set of six FP modules will not be placed forward of the corps rear area. The security of supply routes and heavily traveled roadways in the FP AO should also be considered in the security assessment.

5-13. **Safety.** Safety hazards such as flooding, landslides, or avalanches may exist. Consider previous land uses and slope, such as landfills or other contaminated sites. Since FP consists mainly of tent structures, avoid high wind areas. Consider whether the current or previous occupants may have mined the area under consideration. Use satellite

imagery, ground inspection, and local knowledge to ensure the operating area is free of mines and unexploded ordnance.

5-14. **Geographical, Terrain, and Geological Considerations.** Careful selection reduces overall site work, climate control effort, and drainage requirements. In most cases, flat, gently sloping (7 percent maximum grade), featureless terrain is preferred. However, security or prevailing climate may favor a wooded area. Selecting a site with some vegetation will lessen erosion in a rainy or windy environment and reduce dust in a dry climate. Avoid the low points of valleys or other depressed areas where water may collect. Consider the total hydrology of the area including the water table throughout the time of the mission. Soil stabilization requirements should also be kept to a minimum to reduce the overall earthwork required.

- Terrain and soil analysis should be performed in two distinct phases. First, maps, aerial photos, climate records, and other available data should be used to extract and analyze basic terrain, weather, and climate factors. Second, these factors should be synthesized to predict their influence on site layout, installation of facilities, utilities, camouflage, and the operation and maintenance of the FP module(s).
- A ground reconnaissance should be done to verify all information collected. It is also needed to obtain data which would not otherwise be available. A site that appears suitable based on aerial mapping may be not suitable for use due to ground conditions or water table.

5-15. **Political Considerations.** Political factors, including national sentiment and visibility may also influence which sites are available for FP. In some cases, you may be denied use of an ideal site. Consider the impact that FP and the presence of U.S. soldiers will have on the community. When engaged in SASO, consider whether the site you select appears to benefit a particular group or faction more than another.

5-16. **Logistical Supportability.** Sustained FP operations require tons of consumable resources such as electrical power, fuel, and potable water. These resources may be available through theater resources or through HNS.

- **Electrical Power.** The preferred source of electrical power for FP operations is existing commercial power. To determine the compatibility of existing commercial power with the demands of FP operations, the following information must be researched:
  - Voltage, phase, and frequency of existing commercial power
  - Ability of the existing electrical utility to consistently meet the electrical power demands of FP operations over the projected timeframe
  - Predicted reliability and stability of the power source (outages and voltage fluctuations)
  - Cost of power lines and step-down transformers. FP requires

direct high voltage lines from substations with step down transformers. Simply tapping into low voltage service lines will not provide adequate power.

If commercial power is appropriate to support FP operations, still plan for diesel-powered generators to serve as backup or emergency power for critical subsystems.

- **Fuel Resources.** Consider where appropriate supplies of fuel may be obtained and the convenience and appropriateness of receiving fuel from available alternatives. Supplies of JP8 and MOGAS will need to meet Army fuel standards. Also, fuel consumption will be considerably higher if diesel-powered generators are to be used as the main source of electrical power generation.
- **Potable Water.** The average consumption of potable water per person can range from 20 to 35 gallons per day dependent on conditions. The preferred source of potable water to support FP operations is existing commercial water. Since FP has the capability to test and treat water, existing commercial water need only meet standards which certify its appropriateness as a water source. If an appropriate source of commercial water is not conveniently available, general water support may be utilized or engineering assets may be requested to evaluate the feasibility of drilling wells to extract ground water.

5-17. Effective lines of communication will be required. Existing lines of communication may be used, if available, and adequate to provide uninterrupted communication services to and from key elements.

5-18. Adequate roads to and from the FP AO will be needed to deliver materials and allow access to the FP site by tenant units. These roads should be adequate for travel by a variety of military and civilian vehicles. Consider the types of vehicles which will use the roads in and around the FP AO. The weights, heights, and turning radii of: the waste-water collection trailer, the water delivery truck, the fuel delivery truck, the tank and pump unit, the 4K and 10K forklifts, customer unit (tactical) vehicles, and fire-fighting and emergency vehicles.

5-19. Environmental protection impact, short term and long term, must be considered before erecting a facility the size of FP is erected, therefore, an environmental baseline survey must be completed before construction begins. Also, you must ensure that the site meets all applicable environmental laws and regulations, even if the local population does not. Seek environmental compliance program guidance through the chain of command to ensure that local environmental concerns are properly.

5-20. Approximately 70 percent of the potable water consumed will be returned as graywater or blackwater. Graywater and blackwater are hazardous waste and effects to personnel and the environment must be considered. Graywater will be stored using the graywater collection subsystem supplied as part of the FP module. Blackwater from the latrines will be stored in the holding tanks of the containerized latrines.

It will be collected for disposal using the WWVT/T. Disposal of graywater and blackwater will be considered in the Civil Engineering Support Plan for the theater in which FP is operating. Disposal options include the use of a host nation sewer system (first choice), local contractor haul to a commercial facility, government haul to a commercial facility, or lagoon/field-expedient method.

5-21. If the host nation sewer system or local contractor is selected, the persons responsible for the source of the wastewater must ensure it is safely and properly disposed. FP personnel must verify the integrity of the sewer system before allowing a contractor to dispose of wastewater. Periodic inspections should be done to ensure that wastewater disposal is IAW the environmental provisions of the disposal contract and other provisions. If a host nation sewer system is not available, then other choices must be found. Hauling wastewater to existing facilities is an option and a logistical issue. On-site collection, treatment, and release of wastewater is an engineering issue which should be done IAW FM 5-163, local directives, and host nation laws and regulations on waste disposal.

5-22. Solid waste must be collected and disposed of properly to keep the area sanitary land protect the environment. Solid wastes are non-hazardous items. They are usually disposed of in a CONUS landfill. The preferred method of disposal for solid waste is an existing landfill near the operating area. If an existing landfill is not available, engineering assets need to prepare an appropriate landfill. The ultimate fate or disposal of these items should be known prior to generating them. There may be special, local management procedures required prior to turn-in of these items. Consult the chain of command to determine specific requirements, and ensure that they are incorporated into the unit environmental program.

RECONNAISSANCE AND INFORMATION COLLECTION

5-23. To gather information about possible sites, site selection should be based on many sources of information. No one source of information should be relied upon exclusively, especially in parts of the world where topographic and climate data are not extensive. The main source of site selection information should be collected through the following types of reconnaissance conducted by the AMC LSE Advance Quartering Party.

5-24. **Reconnaissance Survey.** The main purpose of a reconnaissance survey is to find a site which best meet requirements considering general layout and work required. Reconnaissance operations vary with the operational environment; assigned mission; and the size, type, and composition of the reconnaissance element. An aerial, map, or ground reconnaissance is needed to determine potential FP sites. The general principles of engineering reconnaissance outlined in FM 5-170 give guidance on these surveys.

5-25. **Route Reconnaissance.** A route reconnaissance should be performed to determine the suitability of a specified route, limited to critical terrain data. It may be adequately recorded on a map overlay or sketch

and be supplemented by reports about various aspects of the terrain.

5-26. **Road Reconnaissance.** Road reconnaissance is done to determine the traffic capabilities of existing roads. It is also used to give more detailed information than is given by route reconnaissance. It may include enough information to develop work estimates for improving the road. DA Form 1248 should be used to record this information. Use maps and sketches, as necessary.

NONMILITARY RESOURCES AND SUPPORT

5-27. The FP unit depends on many assets, especially during deployment. Determine in-theater assets as early as possible. Coordinate needs well in advance of deployment. Set up communication channels with the logistics, transportation, and engineering elements early. This will greatly improve the chances of a successful deployment.

5-28. FP personnel are not directly responsible for real estate acquisition. However, they may have to deal with problems caused by poorly written contracts and support agreements. FP personnel should make sure all agreements, leases, and contracts are well reviewed by engineer and legal experts within the USACE district.

5-29. Purchase or lease agreements should be made final before even the start of the site being prepared. The earlier a site can be selected and prepared, the more efficiently the FP camp will be constructed. Leases or purchases arranged through MACOM should be completed before the start of any site preparation activities. HNS Agreements already exist in many nations throughout the world. An accurate and thorough survey of capabilities in the receiving theater will help for a successful deployment. HNS requirements will be directed by the MACOM.

5-30. Consider all levels of HNS. New construction should be avoided whenever possible. In many cases, expansion and rehabilitation of existing sites is adequate for FP use. An existing kitchen facility, for instance, could be outfitted and/or supplemented with FP cooking appliances to provide a better facility than using the TEMPER provided. The Army Corps of Engineers also maintains construction-contracting agencies that can assist with local construction. When existing facilities are proposed, ensure that these meet minimum shelter requirements. Theater Civil Engineering Support Plan and/or Annex D of the Operation Order will set minimum standards. Soldiers should not be billeted in or use sub-standard structures as a cost-saving measure.

SITE PLANNING AND PREPARATION

5-31. Site planning is the process of changing a prospective site into a workable layout for a FP module. Preparing a FP site will likely involve many personnel from several military and/or contract agencies. To avoid confusion and speed the collective effort, ensure that the tasks assigned to each organization are well defined. Define them in terms of scope, standards of work, and when work must be started and tasks completed. Monitor the progress of tasks. Correct problems immediately and

include changes in consideration of work completed.

5-32. **Baseline Environmental Survey.** The first step in the preparation process should be a baseline environmental survey. This survey will determine and document the existing conditions of the site. The reasons for the survey are twofold. First, it assesses the site's environmental state before FP use. This can then be used as evidence of the Army's environmental protection program. Second, it gives a to use to restore the site after it is not longer needed.

5-33. **Layout.** In most cases, the recommended site layout should be used. See Figure 5-1 for a typical FP module layout. Note that the recommended layout shows only organic FP subsystems and equipment. Consider what other resources, tentage, and equipment your site may need. Make necessary adjustments to the layout plan. These may include billets and spaces for firefighters, utility teams, MWR personnel, and hazardous waste accumulation areas. Deviations may be necessary to fit FP to a particular site or mission. When an alternative layout will be used, maintain minimum spacing and elevation relationships between subsystems. See Table 5-1 for minimum spacing requirements between subsystems. Engineer units have the necessary knowledge to develop alternate plans.

5-34. **Earthwork.** The supporting Combat Engineer Battalion, Heavy; US Air Force RED HORSE Squadron; Navy Mobile Construction Battalion (SeaBees); LOGCAP; or the theater of operations CCA can prepare the FP site. During site preparation, consider site restoration and environmental impact. Make every effort not to disturb the site more than absolutely needed. To gauge whether a site is "good," "fair," or "poor," use Table 5-2 to determine a baseline assessment. If your site does not fall entirely into one category, use your best judgment and experience to estimate site preparation time. If possible, cut and fill should be balanced on the site to facilitate site restoration. Depending on local conditions, dust abatement may be required during setup. Engineers have this capability and should be consulted, as necessary. Attempts should be made to minimize removal of existing grass and vegetation to reduce dust and erosion. Table 5-3 shows the estimated site preparation times for various Army engineering assets for three categories of existing site condition. This information is estimated and should be used only as an estimate. These estimates are for a standard FP module. If the current mission involves more equipment, space, or services, site preparation times will increase accordingly.

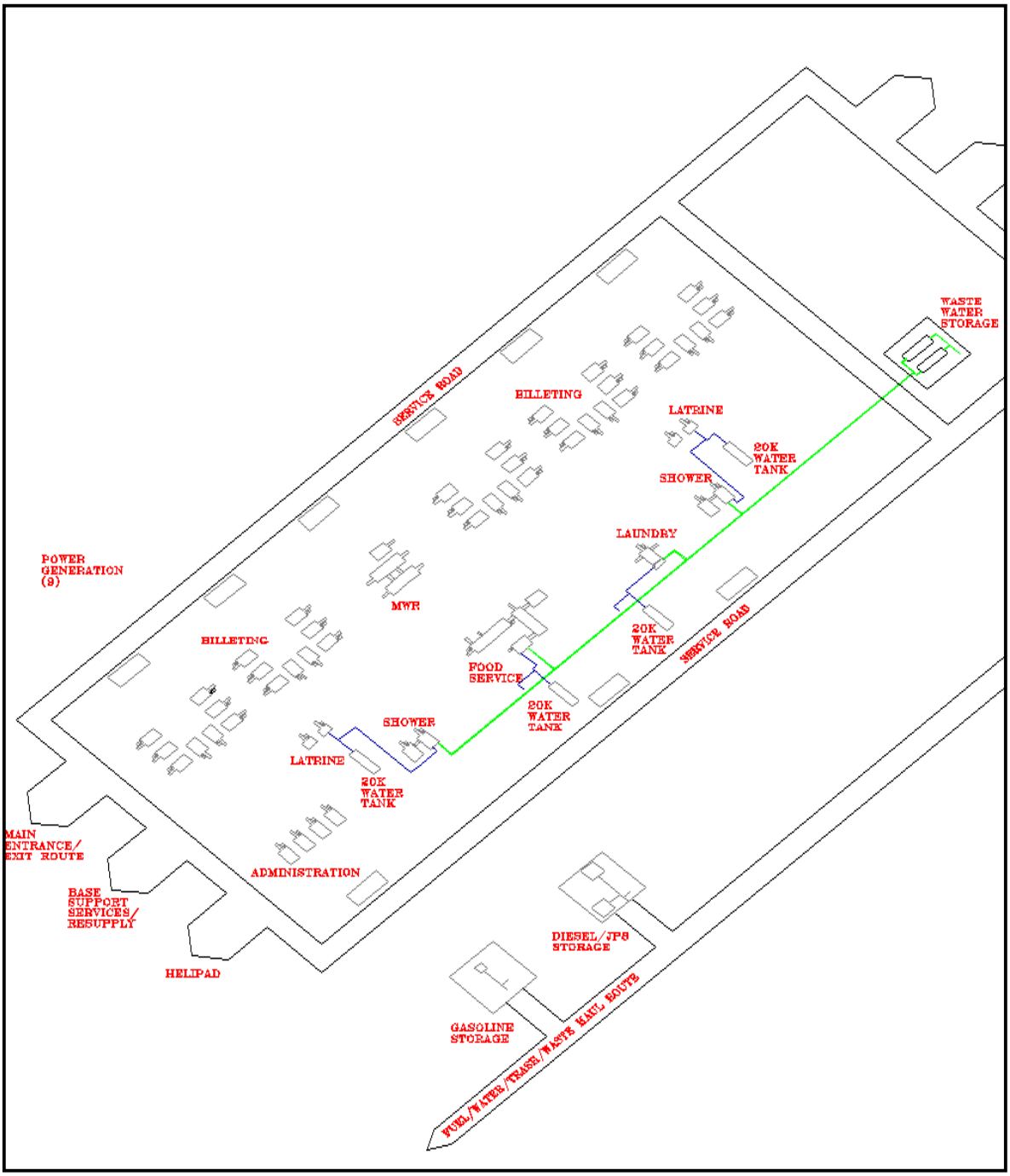

Figure 5-1. Recommended Site Layout of a FP Module

Table 5-1. Minimum Spacing Between Subsystems

	Minimum Spacing (Feet)							
Subsystem	Latrine	Food Service	Graywater	Potable Water	Gasoline	JP-8	60KW TQGs	Billets
Ammunition	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
HW Site	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
Solid Waste	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
Used Oil Site	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
Parking Lot	15	200	15	200	50	50	50	200
Helipad	500	500	300	300	300	300	300	500
MWR Fields	50	50	200	200	300	300	50	50
Roads	15	15	15	15	15	15	15	15
Billets	200	200	200	200	300	300	50	15
60-KW TQGs	50	50	200	50	250	200	300	
750-KW GENs	200	300	200	300	200	200		
JP-8	300	300	200	300	250			
Gasoline	300	300	200	300				
Potable Water	50	20	200					
Graywater	200	200						
Food Service	300							

Table 5-2. Existing Conditions

Site Condition	Definition		
	Good	**Fair**	**Poor**
Terrain	Relatively flat	Uneven	Rough, hilly
Brush/trees	Few	Many	Dense
Soil	Stable	Loose, partially stable	Massive stabilization required
Roads	Existing throughout	Some	None
Drainage	Sufficient as is	Some work required	Massive work required

Table 5-3. Estimated Man-hours for Site Preparation

	Preparation Time (man-hours)		
Site Condition	**Light Eq Plt**	**CSE Co**	**Eng Bn (CH)**
Good	48-72	36-48	24-36
Fair	72-96	48-72	36-48
Poor	96-120	72-96	48-72

5-35. **Road Construction.** Roads in the FP compound must be able to support heavy vehicles such as rough-terrain forklifts, HETs, and the tracked vehicles of tenant units. If not constructed correctly, roads will require constant maintenance to keep them serviceable under heavy traffic conditions.

5-36. **Drainage.** Since the majority of FP subsystems are tent-based, drainage is a top concern. Subsystems should be positioned to allow proper drainage of the site and to avoid drainage of nearby land into the FP area. Runoff due to heavy rain must be channeled away from key subsystems. The latrines should always be positioned downhill from the kitchen to prevent runoff from reaching the cooking area. Local regulations and climate will affect the actions, which must be taken for positive drainage control. When laying out the FP site, keep in mind the desired elevation relationships between subsystems (Figure 5-2).

5-37. **Site Survey and Staking.** Survey the site and stake the activities before setting up any FP module subsystems. Once surveyed, the control points for each subsystem will be marked with a stake and flag (or spray paint on hardstand) IAW the site layout. Within each subsystem, the operators will stake the location of tents and equipment IAW the FP TM using the control points as reference. Setup of each FP subsystem should adhere strictly to the marked staking plan.

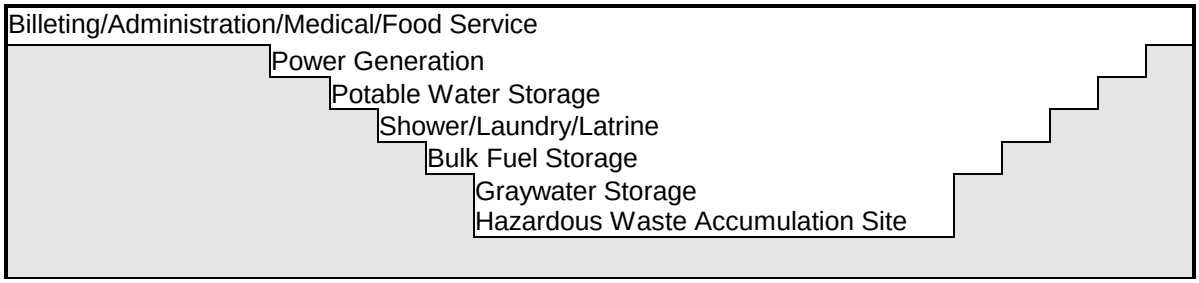

Figure 5-2. Elevation Relationships of Subsystems

SUBSYSTEM SPECIAL PREPARATION

5-38. There are several subsystems in the FP Module that requires special preparation considerations. These subsystems are listed below.

5-39. **Berms.** All collapsible 500-gallon and 20,000-gallon fabric fuel tanks will be emplaced in a berm with raised sides to contain possible fuel leaks or spills. Berms must be designed so that in the event a tank burst the fuel will run off away from the FP compound to reduce the risk of contamination and fire.

5-40. **Culverts.** Electrical cables and potable water and graywater hoses should be buried under roads or pathways to prevent damage. Culvert sections should be used to protect cables and hoses from being crushed or separated. Where potable water hoses cross over or parallel graywater hoses, the potable water hoses must be given 24 inches of vertical and horizontal separation to prevent potential potable water contamination. Either bury the nonpotable hose or use sandbags to raise

the potable line 24 inches. The couplings of potable and graywater hoses must be separated by at least 36 inches to ensure that graywater leaks do not contaminate potable water. When burying fuel lines, ensure that culverts can be inspected for signs of leakage and that precautions are taken to prevent spills from entering surrounding soil.

5-41. **Hardstands.** Several surface areas must be hardened to provide a stable footing for heavy equipment and high traffic facilities. The containerized latrine, the containerized batch laundry, the diesel power generators, the 600-cubic-foot refrigerators, and the food service subsystem dining facility all require hardstand emplacements. The FP TM gives specific information concerning the weight and size of these facilities and equipment.

5-42. **Helipad.** A helipad is part of the FP site. The primary use of the helipad will be for medical evacuations. Locate the helipad as close as possible to the FP medical TEMPER. Materials needed for construction of the helipad, such as matting and lighting are not provided with the FP module. The helipad should be located near the compound but far enough away so that rotor wash does not cause damage to tents or hazards to personnel.

5-43. **Parking Facilities.** A parking area for tenant unit vehicles and equipment must be provided. The area must be large enough to hold all of the unit's vehicles and provide space for the unit to conduct maintenance during their stay.

5-44. **Ammunition Holding Area.** Tenant units may require the use of an AHA at a safe distance from the FP site. The type and size of the AHA will be determined by the needs of the units supported.

5-45. **Waste Accumulation Sites.** It will be necessary to construct sites for storage of solid wastes and hazardous wastes. These storage sites should be constructed IAW the company's environmental protection program and the appropriate laws and regulations governing waste storage in the host nation.

SECTION III – MAIN BODY MOVEMENT

CONUS ACTIVITIES

5-46. Movement of the main body of the QM FP Company begins with a nontactical road march from home station to the port(s) of embarkation. This nontactical road march will be done using organic vehicles to transport company personnel and required organic equipment. See TOE 42-424L000 for a complete listing of authorized organic equipment. Dependent on time requirements and appropriateness, the nontactical road march will proceed to a seaport and/or an aerial port of embarkation. Upon arrival at the port(s) of embarkation, the company will prepare equipment and personnel for overseas movement and await departure. At this time, the AMC LSE Advance Quartering Party should already have arrived in country. If possible, the commander of the QM FP Company should make arrangements to maintain communication

with the advance quartering party so up-to-date information can be used to begin immediately planning the occupation of the FP operational area.

OVERSEAS MOVEMENT

5-47. Upon arrival at the port(s) of debarkation, the equipment reception team will receive the QM FP Company's organic equipment. Final planning for the occupation of the FP AO should be conducted and company personnel and equipment should be readied for a tactical road march to the AO. The tactical road march may or may not be conducted with other units. The road march should be planned to take advantage of available resources and a security posture appropriate to the threat identified should be maintained throughout the march. If needed, members of the advance quartering party can help guide the main body into the FP AO.

OCCUPATION OF THE FP AO

5-48. The AMC LSE Advance Quartering Party will have secured the FP AO before the main body arrives. Upon arrival of the QM FP Company main body, the FP module(s) may or may not have reached the AO. Preparations should immediately begin to occupy the operational area and plan a reinforced defense. The commander and platoon leaders should perform terrain analysis and plan a defense against air, ground, and NBC attack which integrates the support of available resources including those of the visiting tenant units.

SECTION IV – FP MODULE SETUP

TRANSPORTATION TO THEATER

5-49. A FP module consists of about 67,000 cubic feet of containerized material which will require movement from a seaport and/or airport of debarkation to the FP AO. Transportation of the module(s) will be arranged by AMC and is not a responsibility of the QM FP Company. AMC will maintain ownership of the module(s) until the commander of the QM FP Company takes hand receipt at the operating site. The module(s) may be transported from the port(s) of debarkation to the AO by means of air, rail, or linehaul. Table 5-4 contains the shipping requirements for a standard FP module.

5-50. Cold weather kits and camouflage materials are not part of the standard supplies included with a FP module and must be requested separately. Every effort should be made to identify the required configuration of each FP module to reduce delays, and reduce transportation burdens and cost.

MODULE SETUP

5-51. After the QM FP Company has occupied the area, and planned and reinforced the FP AO defense, they should now set up the company command post and erect operator billeting. This will give the company a central area for command and control and a place to live and stow personal gear. Remaining module subsystems should be erected in a logical sequence based on use of manpower and equipment. Subsystems such as power distribution, water distribution and storage, and graywater collection are required for the proper operation of other subsystems. Consider the importance of these subsystems when you determine the use of available resources in the set-up process. ARTEP 42-424-30-MTP contains crew drills which give detailed setup instructions for all subsystems. Technical manuals for these subsystems and components also give setup information.

Table 5-4. Shipping Estimates for Air, Rail, and Linehaul Modes

Mode	Equipment	Quantity
Air	C-5A C-141 C-130 C-17	10 28 58 13
Rail	Gondola cars (68-ft) Flat cars (89-ft)	13 14
Linehaul	M872 w/trailer (40-ft) M915 w/trailer (40-ft) M35A2 (2 ½-ton)	34 27 3627

5-52. Setup of a standard FP module will take 63 personnel about 120 hours to complete. Set-up time will vary based on site conditions, weather conditions and module configuration. If available, more personnel may be used to expedite the set-up process. These personnel may be military or civilian and will not normally possess expertise in module setup. These individuals may be best used conducting repetitive, labor intensive tasks such as erecting billeting TEMPERS. If host nation civilians are used, closely supervise to prevent pilferage and theft and maintain security.

5-53. Availability of critical resources such as the 4K and 10K forklifts will affect set-up time. Use these resources to set up priority subsystems. Follow the staking plan. This will also help to minimize set-up time by preventing the need to relocate subsystem components.

5-54. During setup, the contents of all TRICONs and ISOs should be inventoried using the packing list inside each container. Items and

equipment should also be checked for serviceability. Unserviceable items should be tagged. Shortages or damage should be reported to company headquarters so replacements can be procured as quickly as possible. All packing material and dunage should be saved and stored in unused TRICONs for redeployment.

5-55. The appropriate defensive posture should be maintained throughout the set-up process. During setup, the commander and other leaders should set up the previously planned unit defense, employ physical security and operations security measures, plan for and maintain preparations for NBC conditions, and plan damage control operations. These preparations and measures should take all available resources into consideration including those of visiting tenant units.

SECTION V – REDEPLOYMENT OF FP

IN COUNTRY REDEPLOYMENT ACTIVITIES

5-56. When the order is received to redeploy FP, the QM FP Company commander will start redeployment activities. Redeployment personnel and administration activities are performed and redeployment training activities are undertaken. Company supply activities are to turn in excess items and resupply the company for movement to the home station. Maintenance actions are started to prepare the company's organic vehicles and equipment for movement to home station. At the same time, the company begins preparing the FP subsystems for dismantlement and redeployment.

REDEPLOYMENT OF THE FP MODULE

5-57. A FP module cannot be relocated and will be returned to a CONUS depot for refurbishment following each deployment. The company commander must clear hand receipt of the module to AMC, so it is important that care be taken to redeploy all module components in the best possible condition. Before each subsystem is dismantled, you should ensure each subsystem is free of excess dirt and debris to facilitate later packing. Subsystems with potable water, graywater, or blackwater systems should be flushed with highly chlorinated water and then flushed with potable water to sanitize the systems. Before disassembly, all components should be checked for serviceability. Unserviceable components should be tagged for easy identification during refurbishment. Tagged equipment should be documented and turned in to company headquarters to facilitate the clearing of hand receipt. On occasion, administrative storage may be all that is required of the module. Procedures for this term of storage can be found in TM 746-10.

5-58. During dismantlement, components containing water should be drained and air dried to prevent corrosion or possible freezing. Fuel should be drained from all components containing fuel and allowed to air dry to prevent potential fire hazards. Once dismantled, the components of each subsystem should be thoroughly cleaned before

packing. Each item should be returned to the TRICON or ISO that it was originally IAW the packing list inside each container. Shortages or missing items should be documented and passed to company headquarters to facilitate clearing of hand receipt. ARTEP 42-424-30-MTP contains crew drills that provide detailed dismantling instructions for all of the subsystems. Technical manuals for these subsystems and components also provide dismantling information.

5-59. Hand-off of the FP module to AMC will occur at the site and AMC will arrange transportation for the module back to CONUS. This relieves the unit of the responsibility of tracking the equipment back through various intermediate locations and to its ultimate destination. Coordination should be made with AMC, as soon as possible, to facilitate handover and the clearing of hand receipt for the module(s).

SITE RESTORATION

5-60. Every attempt should be made to restore the operating site to its original condition. Locally constructed items such as floors and sidewalks should be dismantled and properly disposed of in theater. If needed, some of these materials may be used as bracing or dunnage inside shipping containers. Vegetation can not be restored to its original condition, but some revegetation activities may be feasible. Hazardous waste such as fuel, lubricants, graywater, or blackwater should be removed IAW current directives, host nation environment, and storage sites inspected for potential contamination. The environmental baseline survey should be used along with the conventional survey to determine the exact condition of the site and the landscape before its use. Returning the site to its previous condition is the main goal of site restoration.

MOVEMENT TO HOME STATION

5-61. Once the FP module(s) has cleared hand receipt and the site has been appropriately restored, the QM FP Company begins a tactical road march to the port(s) of embarkation. The tactical road march may or may not be done in concert with other units. The road march should be planned to take advantage of available resources and a security posture appropriate to the threat identified be maintained throughout the march. Upon arrival at the port(s) of embarkation, company personnel and equipment should be prepared for movement back to CONUS.

5-62. Upon arrival at the port(s) of debarkation in CONUS, movement of the main body of the QM FP Company to home station will take place by nontactical road march to home station. The nontactical road march will be done using organic vehicles to move company personnel and organic equipment. Upon arrival at home station, the commander starts home station activities to turn in excess or loaned equipment and supplies, inventory organic equipment, debrief company personnel, and complete after action reports.